

#### **IV. REMARKS/ARGUMENTS**

##### **A. Amendments to the Claims**

The application now contains 28 claims.

Claim 1 has been amended in order to better define the subject matter being claimed. No new matter has been added to the claims under the current amendment.

Claims 3, 4 and 6 have been amended in order to correct their claim dependencies.

Claims 2, 5 and 7 have been cancelled from the present application without prejudice.

##### **B. Statements of Rejection and Reply**

###### **ii) Rejection of Claims 1-6, 9, 11-12, 16, 19-22, 26 and 29-31 under 35 USC §103**

In the Office Action, the Examiner has continued to reject claims 1-6, 9, 11-12, 16, 19-22, 26 and 29-31 under 35 USC §103(a) as being unpatentable over U.S. Patent 6,167,028 (hereafter to be referred to as Harris) in view of U.S. Patent 5,644,766 (hereafter referred to as Coy et al.)

###### **Claim 1**

Claim 1 has been amended such that it now includes the subject matter of dependent claim 7, and all intervening claims.

On page 15 of the Office Action, the Examiner indicates that claims 7, 8, 18 and 28 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. As such, given that independent claim 1 has now been amended so as to include the subject matter of claim 7 and all intervening claims, independent claim 1 is now believed to be in allowable condition.

The Examiner is respectfully requested to withdraw his rejection of independent claim 1.

Claims 2 and 5

Claims 2 and 5 have been cancelled from the present application. As such, the Examiner's rejection to these claims is rendered moot.

Claims 3, 4, 6, 9, 11-12, 16 and 19

Claims 3, 4, 6, 9, 11-12, 16 and 19 depend from independent claim 1, and as such incorporate by reference all the limitations contained therein.

Accordingly, claims 3, 4, 6, 9, 11-12, 16 and 19 are now believed to be in condition for allowance as being dependent upon an allowable base claim. The Examiner is respectfully requested to withdraw his rejection of dependent claims 3, 4, 6, 9, 11-12, 16 and 19.

Claim 20

For ease of reference, independent claim 20 has been reproduced herein below.

A multi-service gateway, comprising:  
a plurality of packet-switched ports;  
a pool of port processing software entities (PPSEs), each PPSE having sufficient capacity to provide processing for any of the packet-switched ports; and  
a resource manager adapted to execute a method comprising receiving connection requests and, if a particular connection request involves at least one of the packet-switched ports, **allocating a subset of the PPSEs in the pool for satisfying the particular connection request, as a function of a priority level of the particular connection request, as a function of a usage level of the pool and as a function of a pool occupancy threshold.**

In response to the Examiner's rejection of independent claim 20, the Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness as per § §2142 of the MPEP, for two separate reasons.

*i) the combination of references relate to non-analogous art*

Firstly, it is the Applicant's respectful submission that the Examiner has failed to establish a *prima facie* case of obviousness, on the basis that the two references cited relate to non-analogous art. More specifically, Coy et al. relates to the field of storing and migrating data within a storage hierarchy, which the Applicant respectfully submits is non-analogous to the field of allocating port processing software entities (PPSE's) in a multi-service gateway. As such, the subject matter in Coy et al. would not have been known to an inventor of the present application.

The Applicant presented a similar argument in their last response dated July 21, 2005. On page 2 of the current Office Action, the Examiner has indicated that the Applicant's argument was not persuasive because "Coy et al. is reasonably pertinent to the particular problem of allocating processing resources because Coy et al. teach allocating computer storage memory space, which is clearly a processing resource".

In response, the Applicant respectfully submits that regardless of whether Coy et al. is or is not considered to be pertinent to the problem of allocating processing resources\*, Coy et al. is in no way pertinent to the problem of allocating "port processing software entities" for satisfying a connection request. As such, Coy et al. is neither in the field of the Applicant's endeavor, nor pertinent to the problem with which the Applicant is concerned, and therefore does not qualify as

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\* which, in itself, is a matter of debate

analogous art as per *In re Oetiker* 977 F.2d 1433, 24 USPQ2d 1443 (Fed Cir 1992),.

Accordingly, this reference cannot be properly cited in combination with Harris in order to establish a *prima facie* case of obviousness for independent claim 20.

ii) the combination of references cited do not teach all the limitations claimed

Secondly, the Applicant respectfully submits that even if Harris and Coy et al. did relate to analagous art, which the Applicant respectfully submits they do not, it is the Applicant's respectful submission that the Examiner still fails to establish a *prima facie* case of obviousness, on the basis that the combination of references cited does not teach all the limitations of the claim, as required by §2142 of the MPEP.

More specifically, neither Harris nor Coy et al. teach the following limitation of independent claim 20:

**allocating a subset of the PPSEs in the pool for satisfying the particular connection request, as a function of a priority level of the particular connection request, as a function of a usage level of the pool and as a function of a pool occupancy threshold.**

On page 3 of the Office Action, the Examiner indicates that "Harris in col.13, lines 7-33...recites means including hardware and software associated with the processor for creating the connection [which] clearly reads on the PPSEs as claimed".

The Applicant respectfully disagrees with the Examiner, and submits that col 13. Lines 7-33 of Harris instead discloses a processor 1020 that includes hardware and software for receiving a connection request from a source node, determining

whether the networks capabilities are exceeded and then creating an admission attributes message to potentially authorize the connection. Nowhere does Harris disclose allocating a "subset" of this software or hardware for satisfying a particular connection request. Moreover, the software disclosed by Harris is operative for determining whether connection is possible, and is not actually operative for satisfying the connection request. As such, Harris does not disclose PPSEs as defined in claim 21.

In addition, the Applicant respectfully submits that Coy et al. does not disclose the above limitation of Claim 21 either. Instead, Coy et al. discloses allocating storage resources on the basis of a minimum occupancy threshold. Nowhere does Coy et al. disclose "allocating a subset of PPSEs...as a function of...a pool occupancy threshold".

It is reiterated that in accordance with §2142 of the MPEP, in order to establish a *prima facie* case of obviousness, the combination of references cited must teach all the limitations found in the claim. Since neither Harris, nor Coy et al. disclose all the limitations of independent claim 21, the Applicant respectfully submits that the combination of these references, notwithstanding its aforementioned impermissibility, is not sufficient to establish a rejection based on obviousness. As such, the Examiner is respectfully requested to withdraw his rejection of claim 21.

Claims 21-22, and 26

Claims 21-22, and 26 depend from independent claim 20, and as such incorporate by reference all the limitations contained therein, including the limitation of "allocating a subset of the PPSE's...as a function of...a pool occupancy threshold", which has been shown to be absent from both Harris and Coy et al.

Accordingly, for the same reasons as those presented above with respect to independent claim 20, the Examiner is respectfully requested to withdraw his rejection of dependent claims 21-22, and 26.

Claim 29

The Examiner's attention is respectfully directed towards the following limitation of independent claim 29.

A multi-service gateway, comprising:  
    means for receiving a connection request;  
    means for determining a usage level of resources in a resource pool in the multi-service gateway; and  
    means for allocating resources from the resource pool to satisfy the connection request if the usage level of the pool is below an occupancy threshold, otherwise **determining a priority level of the connection request and allocating resources from the pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level.**

The Applicant respectfully submits that the references cited by the Examiner do not disclose the invention of independent claim 29. More specifically, neither Harris nor Coy et al. disclose the limitation of "determining a priority level of the connection request and allocating resources from the pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level"[emphasis added].

On page 6 of the office action, the Examiner argues that Harris teaches at Col 7, lines 50-62 "allocating resources from the pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level". The Applicant respectfully disagrees with the Examiner, and submits that the Examiner has misinterpreted the teachings of Harris.

More specifically, in columns 7 and 8, Harris discloses sending to a source node a "connection admission attributes message" indicating the network's capacity to transmit cells of a given priority during a predetermined time period. Upon receipt

of a cell at the source node, the source node determines whether the cell would cause the source node to exceed the limits identified in the connection admission attributes message. If it would, then corrective action is taken. This corrective action involves either discarding the cell or transmitting the cell at an available priority other than the priority designation in the cell (Col 8, lines 40-67). As such, Harris does not disclose allocating resources if the priority level of the connection request is higher than a pre-determined level, but instead teaches transmitting a cell at a different priority when resources for transmitting the cell at its priority designation level are not available. The Applicant respectfully submits that sending a cell at a different priority level when resources are not available, is completely different from sending cells only if their priority is above a pre-determined level.

In light of the above, the Applicant respectfully submits that Harris does not disclose the above limitation of independent claim 29.

Furthermore, the Applicant respectfully submits that Coy et al. does not disclose this limitation either. More specifically, Coy et al. simply discloses that when the "minimum occupancy threshold" of a media instance is reached, the live objects on that archival medial instance get consolidated. Nowhere does Coy et al. disclose "determining the priority level" of a connection request if the usage level of the pool is above the "minimum occupancy threshold". Nor does Coy et al. disclose "allocating resources from the pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level". As such, Coy et al. does not disclose the above-emphasized limitation of independent claim 29.

Since neither Harris, nor Coy et al. disclose the above emphasized limitation of independent claim 29, the Applicant respectfully submits that the combination of Harris and Coy et al., is not sufficient to establish a *prima facie* case of

obviousness, as per §2142 of the MPEP. As such, the Examiner is respectfully requested to withdraw his rejection of independent claim 29.

Claim 30

The Examiner's attention is respectfully directed towards the following limitation of independent claim 30.

Computer-readable media tangibly embodying a program of instructions executable by a resource manager to perform a method of processing a received request for a connection through a multi-service gateway, the method comprising:

determining a usage level of resources in a resource pool in the multi-service gateway; and

allocating resources from the resource pool to satisfy the connection request if the usage level of the pool is below an occupancy threshold, otherwise **determining a priority level of the connection request and allocating resources from the pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level.**

The Applicant respectfully submits that the references cited by the Examiner do not disclose, teach or suggest the invention of independent claim 30. More specifically, for the same reasons as those set forth above with respect to independent claim 29, neither Harris nor Coy et al. disclose the above emphasized limitation. Accordingly, the Applicant respectfully submits that the combination of Harris and Coy et al. is insufficient to establish a *prima facie* case of obviousness, as per §2142 of the MPEP. As such, the Examiner is respectfully requested to withdraw his rejection of independent claim 30.

Claim 31

The Examiner's attention is respectfully directed towards the following limitation of independent claim 31.

At least one computer programmed to execute a process for processing a received request for a connection through a multi-service gateway, the process comprising:

determining the usage level of a resource pool in the multi-service gateway; and

if the usage level is below the pool occupancy threshold, allocating resources from the resource pool to satisfy the connection request;



if the usage level is not below the occupancy threshold, **allocating resources from the pool to satisfy the connection request only if the priority level of the connection request is higher than a pre-determined level.**

The Applicant respectfully submits that the references cited by the Examiner do not disclose, teach or suggest the invention of independent claim 31. More specifically, for the same reasons as those set forth above with respect to independent claims 29 and 30, neither Harris nor Coy et al. disclose the above emphasized limitation. Accordingly, the Applicant respectfully submits that the combination of Harris and Coy et al. is insufficient to establish a *prima facie* case of obviousness. As such, the Examiner is respectfully requested to withdraw his rejection of independent claim 31.

iii) Rejection of Claim 10 under 35 USC §103

In the Office Action, the Examiner has rejected claim 10 under 35 USC §103(a) as being unpatentable over Harris in view of Coy et al. in further view of U.S. Patent Application 2001/0001000 (hereafter referred to as Thomas et al.).

Claim 10 is dependent on independent claim 1, and as such incorporates by reference all the subject matter contained therein. In light of the amendments made to independent claim 1, namely that it now incorporates the subject matter of dependent claim 7 (deemed allowable) and all intervening claims, claim 1 is now believed to be in condition for allowance. Accordingly, dependent claim 10 is now believed to be in condition for allowance as being dependent upon an allowable base claim.

The Examiner is therefore respectfully requested to withdraw his rejection to dependent claim 10.

iv) Rejection of Claims 13-15, 17, 23-25 and 27 under 35 USC §103

In the Office Action, the Examiner has rejected claims 13-15, 17, 23-25 and 27 under 35 USC §103(a) as being unpatentable over Harris in view of Coy et al. in further view of U.S. Patent 6,026,086 (hereafter referred to as Lancelot et al.).

For the reasons presented below, the Applicant respectfully traverses the Examiner's rejections, and submits that claims 13-15, 17, 23-25 and 27 are in allowable form.

Claims 13-15 and 17

Claims 13-15 and 17 are dependent on independent claim 1, and as such incorporate by reference all the subject matter contained therein.

In light of the amendments made to independent claim 1, namely that it now incorporates the subject matter of dependent claim 7 (deemed allowable) and all intervening claims, claim 1 is now believed to be in condition for allowance. Accordingly, dependent claims 13-15 and 17 are now believed to be in condition for allowance as being dependent upon an allowable base claim.

The Examiner is respectfully requested to withdraw his rejection to dependent claims 13-15 and 17.

Claims 23-25 and 27

Claims 23-25 and 27 are dependent on independent claim 20, and as such incorporate by reference all the limitations contained therein, including the limitation reproduced below, which has already been found to be absent from both Harris and Coy et al.

**allocating a subset of the PPSEs in the pool for satisfying the particular connection request, as a function of a priority level of the particular connection request, as a function of a usage level of the pool and as a function of a pool occupancy threshold.**

The Applicant further submits that this limitation is also absent from Lancelot et al. Lancelot et al. does not disclose or suggest anything relating to “allocating a subset of the PPSEs” nor does Lancelot et al. disclose anything relating to allocating resources “as a function of a pool occupancy threshold”. Accordingly, Lancelot et al. does not disclose the above limitation of independent claim 20.

Since neither Harris, Coy et al. or Lancelot et al. disclose the above limitation of independent claim 20, and since claims 23-25 and 27 incorporate by reference all the limitations contained therein, the Applicant respectfully submits that the combination of these references fails to establish a *prima facie* case of obviousness as per §2142 of the MPEP.

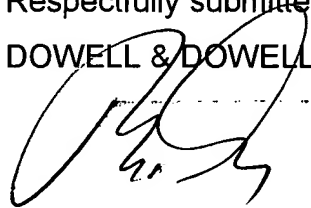
The Examiner is respectfully requested to withdraw his rejection to dependent claims 23-25 and 27.

**CONCLUSION**

In view of the above, it is respectfully submitted that all of claims 1, 3, 4, 6 and 8-31 are in condition for allowance. Reconsideration of the rejections and objections is requested. Allowance of claims 1, 3, 4, 6 and 8-31 at an early date is solicited.

If the claims of the application are not considered to be in full condition for allowance, for any reason, the Applicant respectfully requests the constructive assistance and suggestions of the Examiner in drafting one or more acceptable claims or in making constructive suggestions so that the application can be placed in allowable condition as soon as possible and without the need for further proceedings.

Respectfully submitted,  
DOWELL & DOWELL, P.C.



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Ralph A. Dowell  
Reg. No. 26,868  
Agent for the Applicant

Date: Feb 3, 2006

DOWELL & DOWELL, P.C.  
Suite 406  
2111 Eisenhower Avenue  
Alexandria, VA 22314  
U.S.A.

Tel.: (703) 415-2555  
Fax: (703) 415-2559